

INTERNATIONAL SEARCH REPORT

Intern: 11 Application No
PCT/US2005/015618

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01B3/44 H01B7/295 H01B7/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/050578 A1 (HUDSON MARTIN FREDERICK ARTHUR) 18 March 2004 (2004-03-18) paragraphs '0029!', '0033! paragraph '0054! - paragraph '0060! -----	2-5
X	US 6 552 112 B1 (REDONDO EDUARDO GRIZANTE ET AL) 22 April 2003 (2003-04-22) column 3, line 60 - column 4, line 17 column 5, line 40 - line 59 figure 1 -----	2-5
X	WO 98/02889 A (AB ELECTROLUX; TORNMALM, GUNNAR) 22 January 1998 (1998-01-22) page 2, line 10 - line 18 page 3, line 19 - page 6, line 18 ----- -/--	2-5

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

10 November 2005

Date of mailing of the international search report

17/11/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Stinchcombe, J

INTERNATIONAL SEARCH REPORT

Intern. Patent Application No.
PCT/US2005/015618

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 43 00 795 A1 (KROMBERG & SCHUBERT, 42389 WUPPERTAL) 21 July 1994 (1994-07-21) claim 1; figure 1 column 1, line 62 -----	2-5
X	EP 0 222 683 A (SIEMENS AKTIENGESELLSCHAFT BERLIN UND MUNCHEN; SIEMENS AKTIENGESELLSCH) 20 May 1987 (1987-05-20) column 1, line 3 - line 5 column 2, line 9 - line 37 claim 1; figures -----	2-5

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 1,6,7

Independent claim 1 discloses a flame retardant cable comprising an insulated conductor which comprises a) a conductor, b) an inner insulation layer surrounding the conductor, and c) an outer insulation layer. This cable is then further characterized by reference to parameters, namely the composite dielectric constant and composite dissipation factor of the insulated conductor, as well as the dielectric constant and dissipation factor of the inner or outer insulation layer.

This practice leads to a lack of clarity within the meaning of Article 6 PCT, since the values for these parameters are not commonly quoted in the documents forming the closest prior art, preventing comparison with such documents. The claim is lacking the essential features which lead to fulfilment of the parameters (see PCT Guidelines PCT/GL/ISPE/1 5.33). Furthermore, the claim is considered as a 'result to be achieved' type claim (see PCT Guidelines PCT/GL/ISPE/1 5.35).

Claim 1 also leads to a lack of disclosure within the meaning of Article 5 PCT, since one skilled in the art is not, on the basis of the wording of the claim, then able to refer to the description to produce cables which conform to this claim without undue experimentation (see PCT Guidelines PCT/GL/ISPE/1 5.45-5.48). The claim is not commensurate with the disclosure in the description, leading to a lack of support (see PCT Guidelines PCT/GL/ISPE/1 5.52).

The search has been limited to flame retardant cables comprising an insulated conductor which comprise a) a conductor, b) an inner insulation layer surrounding the conductor, and c) an outer insulation layer, and which have layers b and c of differing compositions or physical properties, particularly those examples comprising the i) non-halogenated polymers and ii) flame retardants other than halogenated materials and antimony oxide as described in claim 2.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/015618

Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1, 6, 7
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2005/015618

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2004050578	A1	18-03-2004	NONE	
US 6552112	B1	22-04-2003	NONE	
WO 9802889	A	22-01-1998	AT 201113 T	15-05-2001
			AU 3712597 A	09-02-1998
			DE 69704770 D1	13-06-2001
			DE 69704770 T2	23-08-2001
			EP 0910855 A1	28-04-1999
			SE 506975 C2	09-03-1998
			SE 9602763 A	13-01-1998
DE 4300795	A1	21-07-1994	NONE	
EP 0222683	A	20-05-1987	DE 3537221 A1	23-04-1987